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INVESTIGATION OF ERTS/RBV AND MSS IMAGERY FOR PHOTOMAPPING OF THE
UNITED STATES

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Type II Progress Report for Period 1 July 1972 - 31 December 1972

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16. Abstract Preparation of 1:250,000 scale photomaps requires two-stage enlargement. Second generation 9 x 9-inch negatives (N-2) will result in superior photomap product. MSS imagery is better than anticipated, however, a comparison of system corrected and scene corrected imagery will help determine the trade-off between image quality and geometry.			
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Figure 2. Technical Report Standard Title Page

Type II Progress Report
ERTS-A

a. Title: Investigation of ERTS/RBV Imagery for Photomapping of the United States

ERTS-A Proposal No. SR 211

b. GSFC ID No. of P.I. IN056

c. Statement and explanation of any problems that are impeding the progress of the investigation:

Several scenes in each of the test areas have been received, however, coverage is spotty due to the lack of imagery and/or excessive cloud cover. To be effective, contiguous coverage with less than 10% cloud cover is required.

Preparation of photomaps at 1:250,000 scale and 1:500,000 scale from 70 mm negatives required two stage enlargement with equipment available to this investigator. Currently the only 9 x 9-inch negative available from NASA as a standard product is scene corrected which is degraded during the precision processing.

A letter dated January 8 has been sent to Mr. Arthur Fihelly at NASA to consider providing 9 x 9-inch second generation (N-2) system corrected negatives. This will allow us to determine the trade-off between image quality and geometry.

d. Discussion of the accomplishments during the reporting period and those planned for the next reporting period:

Additional imagery received since the last bimonthly report has been inspected, indexed, and filed for each project area. However, the lack of contiguous frames of essentially cloud-free imagery has hampered progress in the preparation of maps covering a standard format.

Receipt of N-2, 9 x 9-inch system corrected imagery, as indicated in "c" above, and early response to requests for the preparation of scene corrected imagery should help fulfill proposal obligations during the next reporting period.

e. Discussion of significant scientific results and their relationship to practical applications or operational problems including estimates of the cost benefits of any significant results.

Multi-Spectral Scanner (MSS) imagery substituted for the Return Beam Vidicon (RBV) imagery appears to have surpassed our initial evaluation of the anticipated image quality as compared to the expected quality of the RBV imagery. A comparison of the imagery from the two systems over the same scene will help in determining the value of each system.

f. A listing of published articles, and/or papers, preprints, in-house reports, abstracts of talks, that were released during the reporting period.

NA

g. Recommendation concerning practical changes in operations, additional investigative effort, correlation of effort and/or results as related to a maximum utilization of the ERTS system:

A letter to NASA has requested a change in the standard products furnished to the P.I. (see paragraph "c" above).

h. A listing by date of any changes in Standing Order Forms:

NA

i. ERTS image descriptor forms:

NA

j. Listing by date of any changed Data Request Forms submitted to Goddard Space Flight Center/NDPF during the reporting period:

NA